

## WHAT IS CLAIMED IS

1. A system having a modifiable backplane capability, the system comprising:
  - a chassis;
  - an embedded backplane positioned within the chassis and adapted to receive a plurality of daughter boards; and
  - a replaceable module positioned proximate to the embedded backplane and adapted to receive the daughter boards, wherein the system is modifiable depending on a selected characteristic of the replaceable module.
2. The system of claim 1 wherein the chassis is adapted for receiving both the embedded backplane and the replaceable module.
3. The system of claim 1 wherein the embedded backplane is positioned between the daughter boards and the replaceable module.
4. The system of claim 3 wherein at least one of the daughter boards includes a connector adapted to extend through the embedded backplane and into the replaceable module.
5. The system of claim 3 wherein the embedded backplane includes a plurality of openings, and wherein the replaceable module is configured to receive the daughter boards via the plurality of openings.
6. The system of claim 3 wherein the chassis includes an opening proximate to the embedded backplane for accessing the replaceable module.

7. The system of claim 1 wherein at least one of the daughter boards includes a first connector adapted to connect to the embedded backplane and a second connector adapted to connect to the replaceable module.

8. The system of claim 1 wherein the embedded backplane is in signal communication with the replacement module.

9. The system of claim 1 wherein the replaceable module is a replaceable backplane, and wherein the selected characteristic of the replaceable backplane provides the system with additional bandwidth.

10. The system of claim 1 wherein the replaceable backplane includes a plurality of general purpose slots, wherein each general purpose slot is adapted to receive a daughter board.

11. The system of claim 10 further comprising a router card connected to one of the general purpose slots, wherein router card is adapted to control the flow of data through the replaceable module.

12. The system of claim 11 wherein the replaceable module further includes first and second sets of data transfer paths connecting each general purpose slot and the router card, wherein the first set of data transfer paths is adapted to transfer data from each general purpose slot to the router card, and wherein the second set is configured to transfer data from the router card to each general purpose slot.

13. A replaceable module adapted for modifying at least one characteristic of a telecommunications device having an embedded backplane, the module comprising:  
a body portion, wherein the body portion includes a plurality of data paths;

a plurality of connections in communication with the data paths for connecting at least one of the data paths to one or more printed circuit boards; and

alignments means for positioning the module with respect to the backplane.

14. The replaceable module of claim 13 wherein the connections are positioned on the module to correspond to openings in the embedded backplane.

15. The replaceable module of claim 13 further comprising:  
a plurality of printed circuit boards in signal communication with the connections; and

at least one router board, wherein the router board is attached to each printed circuit board via at least one data path.

16. The replaceable module of claim 15 wherein the router board is attached to each printed circuit board via first and second data paths, wherein the first data path is adapted to transfer data from the printed circuit board to the router board, and wherein the second data path is adapted to transfer data from the router board to the printed circuit board.

17. The replaceable module of claim 16 wherein the first and second data paths each comprise a pair of signal lines.

18. A method for selectively replacing a removable backplane in a telecommunications device, the method comprising:

identifying that an embedded backplane fails to meet at least one defined criterion;

selecting a removable backplane meeting the defined criterion; and

installing the removable backplane in a position proximate to the embedded

backplane, wherein the removable backplane is adapted to provide functionality compatible with the defined criterion.

19. The method of claim 18 further comprising:  
identifying that an installed removable backplane fails to meet the at least one defined criterion; and  
removing the installed removable backplane from the device prior to installing the removable backplane meeting the defined criterion.

20. The method of claim 18 further comprising aligning slots in the removable backplane with holes in the embedded backplane prior to installing the removable backplane.